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Subject: Hawaii News: Hono. Star Adv. Viewpoint - Fuel Feud - Red Hill

## Fuel feud

Environmentalists and the Board of Water Supply fear tainted water from the military's giant fuel tanks

By Vicki Viotti Honolulu Star Adv.

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The question: Is Hawaii doing enough to safeguard the water aquifer at Red Hill from possible contamination from the array of 20 military fuel tanks of World War II vintage?

Yes, say Navy officials, who take the position that keeping the Red Hill Underground Fuel Storage Facility intact and continuously operational is essential to national defense.

Not surprisingly, the answer from the Sierra Club Hawaii Chapter, in the time since the January 2014 discovery of a 27,000-gallon leak from Tank 5, is a resounding no. The environmental group argues that the safest approach to the problem with the fuel tanks, which are located adjacent to a key groundwater supply, is to dismantle them.

"My take is our groundwater is too valuable to risk," said Marti Townsend, Sierra Club's executive director. "We really should be taking the most cautious approach to decisionmaking about our groundwater."

The real standout critic of the controversial agreement governing the repair schedule for the tanks is the front-line defender of the aquifer here: The Honolulu Board of Water Supply.

Officials from the Navy, the Environmental Protection Agency and the state Department of Health, armed with data, present a picture that the recently announced accord represents the best assurance for the future of both the storage facility and the civic drinking water supply.

The water board's top officials are not convinced, however. Although they do not advocate shutting down the facility, they assert that the agreement should have compelled a more aggressive timeline for repairs. The tanks are old, they said, and a decades-long schedule of reinforcement is just too long to take risks.

At issue is the Administrative Order on Consent (AOC) the state and federal agencies signed, as well as the Statement of Work that lays out how remediation of the problem will work. The accord allows the Navy two years to come up with the best options for upgrading the Red Hill tanks, and then 20 years to complete implementing those improvements.

A group of officials involved with these agreements met recently with the Honolulu Star-Advertiser editorial board to explain why they believe the safeguards are sufficient.

Among the reasons offered are the geology and the directional flow of water. Capt. Mark Manfredi, chief of staff, Navy Region Hawaii, said the well in closest proximity to the leak is the Halawa Red Hill Shaft, about 3,000 feet away; that source serves Joint Base Pearl Harbor-Hickam.

The municipal sources, the Halawa and Moanalua shafts, are to the north and south, respectively, and ridges provide further separation, added Capt. Ken Epps.

"There is significant Mother Earth between Red Hill and any of those three drinking water shafts that we've identified," said Epps, who is commanding officer of the Fleet Logistics Center at Pearl Harbor.

Beyond that is the hydrology, he said.

"People think that if something were to spill, it would just flow out evenly like a blob, but it doesn't," Epps said. "It has a very different flow pattern. ...

"We know this for a fact, and it gives us the ability to trace and track and do something pre-emptive, because we know the nature of that potential flow."

The volcanic rock underlying the tanks and bordering on the lens of drinking water, Epps acknowledged, is porous. But although it's not impermeable, he said, its "spongy" quality would help to lock up any spillage in the rock, as well.

Officials also underscored that the agreement is bolstered by requirements for ongoing monitoring and for refinement of the studies of the surrounding environment.

Jared Blumenfeld, the Pacific Southwest regional director for the EPA, said the requirements were part of the concessions enabling the agreement to be signed.

"This wasn't kumbaya all the way," Blumenfeld told the editorial board by telephone link, describing the results as a "groundbreaking agreement" that met EPA standards. "There were tough negotiations."

"The most important thing to articulate is that while there was risk, that risk never led to an incident that impacted drinking water," he added.

The assurance that there won't be a repeat episode going forward comes from the "around the clock" monitoring and evaluation, Blumenfeld said -- adding that the long timeline helps to ensure that the fix that the Navy develops is the right one.

"In terms of picking the solutions, we need to ensure that they solve the problem," he said. "We don't want to rush after solutions that don't fix the problem.

"If you think about how long it would take to build these from scratch, it would probably take that entire time."

Ernest Lau, the manager and chief engineer of the city Board of Water Supply, said in a separate interview that among the items he finds worrisome in the accord are potential constraints on the engagement of the board and other public entities in the review process. One clause he cited referenced "stakeholder involvement" as "subject to nondisclosure agreements."

"We suspect that that will be the case, that they'll ask us to sign an NDA," Lau said. "Our concern, and it's been our concern from the very beginning about NDAs, is we feel an issue as important as this should be transparent.

The public should also be aware of the issues related to Red Hill." A video about its construction is on YouTube, for example, he said.

The board will explore the specific constraints of the nondisclosure agreement, whether it will involve the redacting of information for homeland-security reasons and procurement matters. He noted, however, that the storage facility was declassified in 1995 and that there's already a lot of information about it on the Web.

The water board has been invited to scoping sessions to discuss the way forward, with indications that they will begin at the end of November or early December. That scheduling was significant, and not in an encouraging way, for those worried about the timeliness of the whole process, he said.

"We kind of notice it's already beyond the 30-day deadline that the AOC has set for the scoping meetings," Lau added. "I don't need to comment on that."

The board's primary concerns are twofold. One is that eventually fuel contaminants that have leaked will find their way into freshwater sources.

The other is the board's contention that recent amendments in federal regulations concerning such tanks should apply to this installation. Lau said stricter requirements for corrosion prevention should be implemented at Red Hill.

The bottom line, he said, is that the age of the tanks themselves could so compromise their integrity that there could be a catastrophic discharge before the Navy has made its improvements. The tanks were built between 1940 and 1943, and each 250-by-100-feet cylinder can hold up to 12.5 million gallons of fuel.

Lau cited a state Water Commission monitoring test well drilled to detect the expansion or contraction of the freshwater lens below to the subterranean salt water level -- a "zone of transition." There has been fuel components detected there, he said.

"You think fuel actually sits on top of the freshwater because of fuel being lighter," he said. "But we know that fuel over time will dissolve into the groundwater itself."

He added that the agency argues not for retiring the facility, but for improving it. He has said that the water agency believes that creating a second lining or double-walling each tank would be the best way to proceed.

As for retiring the tanks, that's a nonstarter from the Navy's point of view.

"The purpose of Red Hill is to serve as the primary gas station for the Pacific," Epps said. "If we have any major mobility operations that have to occur in this arena, anywhere between the mainland and as far west as you can imagine, we're it."

"You have to look at what other options, physically, are available out here," he said. "We just don't have, physically, the options, and Hawaii is suited for a whole host of reasons. And why we're here now is because of the time and distance problem, and how we can sort of solve the tyranny of geography."

Opponents such as the Sierra Club are taking a harder line, however. Townsend said the nonprofit is doing its "fact-finding" and would not rule out legal action as its end game.

"It's very difficult for the Navy to justify risking the groundwater for a significant portion of Oahu's water in the interest of national security, when having healthy drinking water is an element of security," she said.

